

Pb Free
ROHM Electronic Components

RoHS
Directive Compliance

Emitting Color	White
Material	InGaN on SiC
Package Size(mm)	 3020(1208) 3.0×2.0(t=1.3)
Part No.	

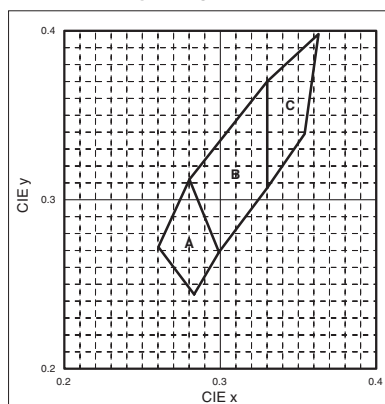
■ Absolute Maximum Ratings (Ta=25°C)

Part No.	Emitting color	Power dissipation P _D (mW)	Forward current I _F (mA)	Peak forward current I _{FP} [*] (mA)	Reverse voltage V _R (V)	Operating temperature T _{opr} (°C)	Storage temperature T _{stg} (°C)
SML013WBDW	White	78	20	100	5	-30 to +85	-40 to +100

■ Electrical Optical Characteristics (Ta=25°C)

Part No.	Resin	Forward voltage V_F		Reverse current I_R		Chromaticity coordinates			Brightness I_v		
		Typ. (V)	I_F^{-1} (mA)	Max. (μ A)	V_R (V)	x	y	I_F^{-1} (mA)	Min. (mcd)	Typ. (mcd)	I_F^{-1} (mA)
SML013WBDW	Phosphor included	3.2	20	100	5	0.30	0.30	20	360	900	20

■ Chromaticity Diagram

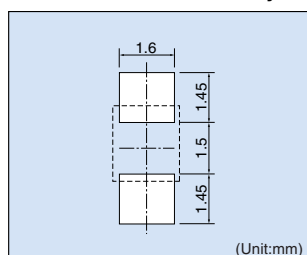


Chromaticity Coordinates (Ta=25°C, IF=20mA)

A		B		C	
x	y	x	y	x	y
0.283	0.244	0.280	0.312	0.330	0.307
0.299	0.269	0.330	0.370	0.354	0.339
0.280	0.312	0.330	0.307	0.363	0.398
0.260	0.272	0.299	0.269	0.330	0.370

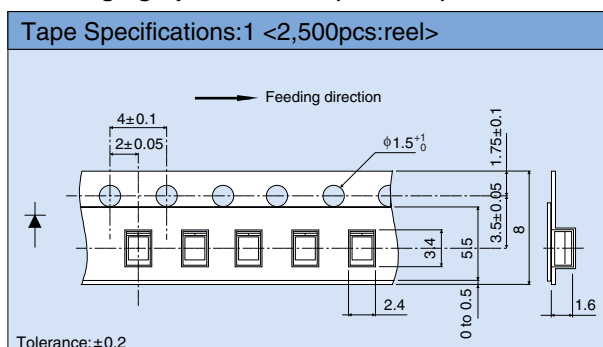
Measurement tolerance: +0.01

■ Recommended Pad Layout

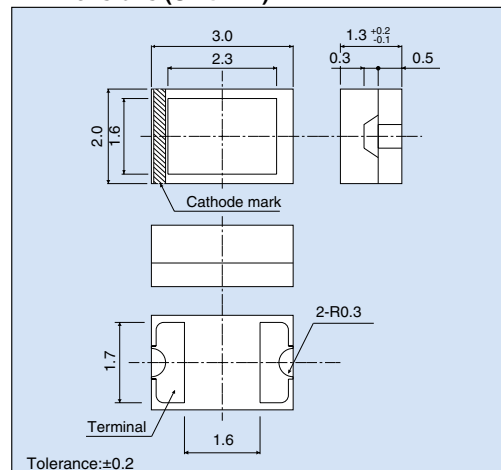


The recommended thickness of the screen mask for soldering is between 100 and 150µm. The hole size of the screen mask should be same as the recommended land pattern or smaller.

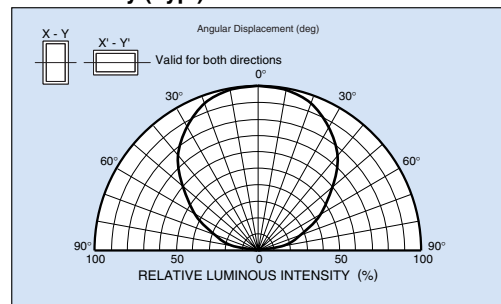
■ Packaging Specifications (Unit:mm)



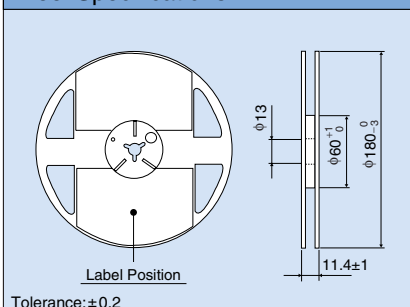
■Dimensions (Unit:mm)



■ Directivity (Typ.)

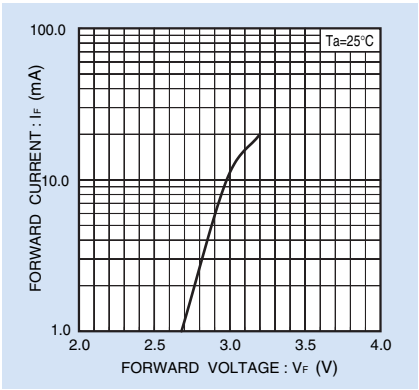


Reel Specifications



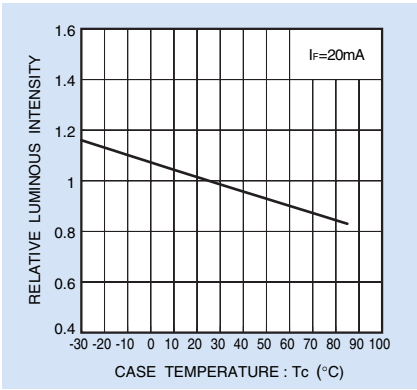
■Electrical Characteristic Curves

Forward Current - Forward Voltage



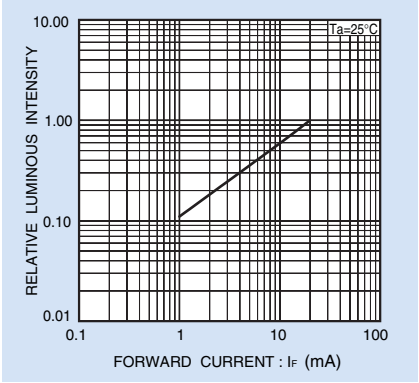
— SML013WBDW

Relative Luminous Intensity - Case Temperature



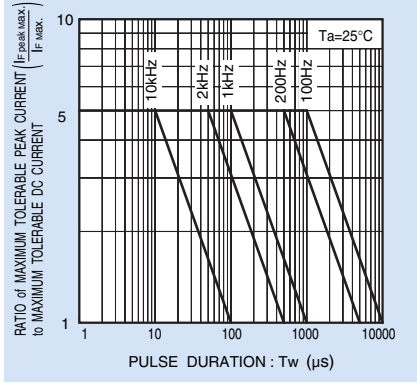
— SML013WBDW

Relative Luminous Intensity - Forward Current



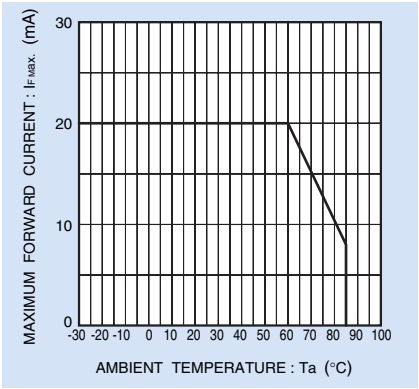
— SML013WBDW

Ratio of Maximum Tolerable Peak Current - Pulse Duration



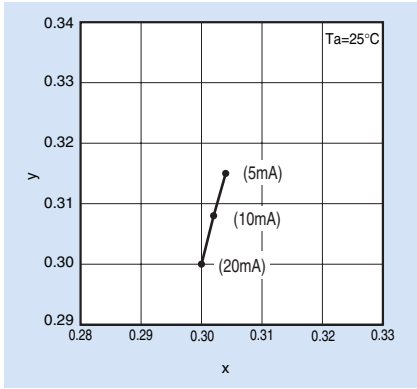
— SML013WBDW

Derating



— SML013WBDW

Forward Current - Chromaticity Diagram



— SML013WBDW

Notes

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